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April 9, 2006

To: The National Organic Standards Board  
c/o Valerie Frances  
Room 4008 – South Building  
1400 and Independence Avenue, SW  
Washington D.C. 20250-0001

**Re: Comments on the Interim Final Report of the Aquaculture Working Group**

Dear Ms. Frances,

On behalf of Naturland, an international certification program accredited under the NOP, I would like to express our sincere appreciation for the opportunity to contribute to this important legislative process.

For more than a decade, Naturland has pioneered development of organic aquaculture, as well in industrialised countries (e.g. organic salmon in Ireland, trout in Germany, tilapia in Israel), as in a development aid context (e.g. shrimp in Ecuador, Indonesia and Vietnam). Standard development has always been a most crucial part of these projects regarding their technical viability and practical relevance on farm level, but also for acceptance by the „organic community“ for such novel products.

We would like to provide the following comments for consideration:

(1) The Interim Final Report of the Aquaculture Working Group (in the following as „the draft“) addresses numerous aspects in a way that well reflects the state of discussion, as run by various certification programs on these particular issues<sup>1</sup>.

A few proposals in the draft, however, deviate from that broader "background consensus" as we perceive it and a preliminary list of these is given in the annex.

(2) As a central point of concern, however, we feel that far too many issues in the draft are left to individual interpretation of the farms and/or the certification bodies.

Reason for our concern is that the draft (and the future NOP regulation) is not meant to serve as a „frame standard“, but as a full „production standard“. Therefore, an organic aquaculture operation will have to meet literally only the criteria explicitly contained in the regulation. Any further interpretation or specification required by the regulation (as e.g. in § 205.252 „feed [...] must meet the minimum nutrient requirements [...] and minimize the environmental impact...“) would be proposed by the farm itself, and eventually become approved by the certification body in charge.

In consequence, the reality of organic aquaculture farms will be shaped in first order by what is laid down in the regulation in clear figures; those issues left to individual interpretation, on the other hand, are expected to represent a much less stringent, consistent, and robust part.

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<sup>1</sup> e.g. under the umbrella of IFOAM aquaculture working group

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From a technical point of view, exactly those issues left to individual interpretation are the ones being most relevant for the "organic character" of an aquaculture operation. Often, but not in all instances, stocking density or other intensity parameters have central importance<sup>2</sup>.

At a first glance, an open, general wording may appear more friendly to aquaculture industry, but not only technical or ecological reasons speak for more specific standards: US companies certified against a less specific NOP regulation would face major difficulties on international organic markets. On the other hand, foreign companies would have less difficulties to come up to a less precise NOP regulation.

We do not recommend to develop standards for every single species, but for the most relevant production systems with their typical set of species, such as e.g. „shrimp in ponds“ – covering all different shrimp species; „salmonids in net cages“ – covering all salmonid species. Only in few cases, it may become necessary to distinguish further (e.g. between rainbow trout and charr), and this could be considered a mid-term task of future revisions. As a first step, a regulation on five of such main systems would cover some 90% of all candidate farms. More distant systems (e.g. „management of makroalgae collections“) could be addressed in future revisions.

Naturland would be honoured to contribute to the further aquaculture standard development process at NOSB.

Sincerely,

Stefan Bergleiter, Ph.D.

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<sup>2</sup> Using the example of two organic shrimp farms, both "organic" as to the draft's standards, I will try to illustrate this:

*The first farm is run at moderate densities (< 15 animals/sqm), and the shrimp feed primarily on diatoms and other plankton organisms growing naturally in the ponds, contributing to a feed conversion rate of well below 1.0. A low-protein and low-fishmeal feed formula can be used, putting little stress on water quality, and leaving no accumulation of sludge/biomass after harvest. Due to these favourable conditions, mortalities are low, and there is no significant problem with viral diseases. There is no need for permanent artificial aeration, and water exchange is extremely low. The dykes are plant covered, safeguarding macro- and micro-biodiversity. Any excess of nutrients is taken up by the roots of helophytic plants that are cut, composted and put back as fertiliser into the system. In effect, effluent water quality is equal with (or even lower in nutrients than) the sourcing water body.*

*The second farm is running at high densities (e.g. 100 animals/sqm), requiring permanent artificial aeration. The animals rely nearly exclusively on external feed, and the fishmeal limitation in the draft is compensated by protein from organic soybeans. Even with this high-protein diet, feed conversion rate is close to 2.0. A thick layer of organic deposit shows after harvest, stressing the animals' health, and causing increased levels of mortality. The water conditions in the ponds can only be stabilised with high exchange rates. No plant growth on the dykes is tolerated, for easier access of heavy machinery.*

*The difference between the two farms mainly is defined by specific standards on „limitation of stocking density“, „limitation of protein content in feed“, and „minimum percentage of plant cover“.*

*In a similar way, importance of such specific standards can be demonstrated for all other systems.*



Annex: Preliminary comments on punctual technical issues in the Interim Final Report of the Aquaculture Working Group („the draft“)

§ 205.251 (a): In the draft, the deadline for young stock from conventional breeding is given as „5% market weight“ or „2<sup>nd</sup> day exogenous feeding“, the latter being much stricter for most commercial species (at the 2<sup>nd</sup> day of exogenous feeding, aquatic animals are usually far below 1 g).

In various organic standards, this deadline is given with maximum 1/3<sup>rd</sup> of total lifespan, and we tend to recommend an adoption of this.

(e) and (f): The draft prohibits triploidization by physical treatment of eggs, but permits monosex stocks through hormonal treatment of parent stock.

In various organic standards (e.g. Naturland's), both options are not permitted. From our point of view, however, triploidization is less problematic in an organic context than hormonal treatment of parent stock.

§ 205.252, Option A (f, g): We support the preference for seafood by-products over whole fish meals as an appropriate signal, because in the organic community there is rightful objection against catching fish solely for the purpose of feed production.

We are concerned that the obligation for all supplying fisheries to have an independent certification status (MSC or others), even if only by-products are used, would be at the cost of regionality, which is an important aspect of the organic movement<sup>3</sup>.

Our recommendation is to require „full“ certification status only for meals from whole fish, and to accept a less complete sustainability classification (e.g. by a local body) for by-products.

(Option B is hardly workable for many finfish species – at least at moment – due to the low availability of certified organic aquaculture products.)

§ 205.253 (c 1): This strict approach – as to the state of the art – is workable for many species and systems, such as shrimp, molluscs and freshwater finfish. Nevertheless, it poses particular difficulties for sealice treatment in marine salmon farming. Reason is that marine authorities require to keep sealice levels low and eventually demand treatment. Other than in terrestrial livestock, a farmer usually has to treat the whole stock of fish on a site, and cannot spare any fish for his organic production. This circumstance would lead to a highly unstable supply situation, possibly making marketing impossible.

An exceptional permission for a limited number of treatments with defined *parasiticides* and under a defined residual testing/withdrawal protocol should be considered.

The way we see it, a complete prohibition of organic fish having been treated with *antibiotics*, however, is feasible.

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<sup>3</sup> see the following scenario: a whitefish lake fishery would like to provide by-products as a feed to local organic trout farmers, but is not allowed to do so, because a certification of this fishery is not at hand, and certification costs are not justifiable because of the limited scale of this fishery.

At the same time, a Peruvian anchovy fishery has obtained MSC certification and, therefore, the trout farms have to import the meal from this fishery.